

(c:) AMENDMENTS TO CLAIMS

1. (withdrawn)

2. (withdrawn)

3. (withdrawn)

4. (withdrawn)

5. (withdrawn)

6. (withdrawn)

7. (withdrawn)

8. (withdrawn)

9. (withdrawn)

10. (withdrawn)

11. (withdrawn)

12. (withdrawn)

13. (withdrawn)

14. (withdrawn)

15. (withdrawn)

16. (currently amended): A vehicle electrical system comprising:

a battery ~~set~~ having a grounded terminal and an ungrounded terminal;

an electrical system controller ~~including data processing capacity~~;

a charging regulator having an output connected to the ungrounded terminal of the battery and responsive to a control signal received on a control input;

an electrical power generator connected to energize supply electrical power to the charging regulator;

instrumentation connected to the electrical system controller for providing measurements of current discharged from the battery, current delivered to the battery, and battery temperature;

a program residing on the electrical system controller for execution, the program utilizing battery temperature, battery temperature rate of change and measured current discharged as inputs ~~to an algorithm for periodically~~ dynamically setting a control signal value for the control signal; and

means for applying coupling the control signal to the control input of the charging regulator.

17. (currently amended): A vehicle electrical system as set forth in Claim 16, further comprising:

a plurality of electrical subsystems for supplying power to different component groups of the vehicle; and

a plurality of voltage regulators for setting the voltage on selected electrical subsystems independently of the other electrical subsystems.

18. (currently amended): A vehicle electrical system as set forth in Claim 17, further comprising:

a second battery set connected to provide power at a different voltage than the first battery set.